

V. REMARKS

Applicant would like to point out to the Examiner that the instant application was filed with 7 claims and not 6 claims as indicated in the Office Action. Applicant respectfully requests that the Examiner examine independent claim 7 in a subsequent non-final Office Action.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim is amended to obviate the rejection. Withdrawal of the rejection is respectfully requested.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as unpatentable over any one of Nasse (U.S. Patent No. 4,582,603) or Koller (U.S. Patent No. 5,728,297) or Eimer (U.S. Patent No. 4,904,397) or DE 3829360 further in view of Lynch (U.S. Patent No. 5,587,074) or MacIsaac (U.S. Patent No. 2,066,479). The rejection is respectfully traversed.

The Office Action has rejected claims 1 to 6 as being unpatentable in view of the above cited documents. It is respectfully submitted that none of the cited documents disclose the filtering device claimed in this application. In the filtering device of the present invention, the debris extractor arm is not in contact with the surface of the screen. The screen is not divided into separate segments with ribs. There is a gap between the bottom surface of the debris extractor arm and the screen. In this regard, please refer to the paragraph which bridges pages 5 and 6 of the specification. The gap is not covered with sealing lips as in the case of cited prior art. In fact, the applicant has given in detail the drawbacks of using sealing lips in the paragraph bridging pages 1 and 2.

The inventive features of the invention lies in the profile of the debris extractor arm which creates lower pressure in the gap between the debris extractor and the screen compared to the pressure elsewhere inside the tubular housing. This low pressure enables efficient clearing of debris by a backwashing technique. The external contour of the debris extractor arm enables to achieve this. Enclosed is an illustrative drawing figure which explains the operating principle of the debris extractor arm of the present invention.

With reference to the cited references:

US 4,582,603 describes the screening apparatus wherein a motor is connected to the suction head to perform backwashing action.

US 5,728,297 relates to cleaning apparatus wherein conical sieve is divided by radial barriers and the suction device with a intake nozzle of substantially the same shape as the individual sector of the sieve is used for clearing the debris. The nozzle has flexible sealing lips which extend from the nozzle to be barrier of the sieve so as to close the gap between the sieve and the nozzle. Please refer to figure 3 of this document.

US 4,904,397 relates to cleaning device wherein filter surface has radial ridges for sub dividing the surface into individual sectors and sector shaped nozzle is used for clearing the debris. Like in US 5,728,297, flexible sealing lips are attached either to the free edge of the radial ridges or to the sides of the nozzle so as to close the gap between the nozzle and the filter surface. Please refer to figures 3 and 4 of this document.

US 5,587,077 relates to a backflush conduit wherein the internal contour of the conduit is designed in such a way to have effective backwashing operation. Please note that the document particularly, the portion on column 6 with reference to figure 5 states that the important aspect of the present invention is the internal contours of the backflush conduit. Further, it says that the interior contour has a very significant effect upon backflushing effectiveness and efficiency and the external configuration has relatively little effect upon the operation of the filter. Further, even in the filter apparatus of this document, there is no open gap between the conduit and the filter surface. Therefore, it is clear that this document do not suggest or encourages a person skilled in the art that external configuration of a Debris Extracting arm can be designed for effective backwashing operation.

US 2,066,479 relates to fluid straining apparatus which do not contain the features of the apparatus claimed in this application.

The applicant of the present application was able to achieve the effective backwashing while maintaining an open gap between the debris extractor arm

and the screen. No one else was able to achieve this prior to the date of this application. None of the cited documents discloses filter apparatus with arrangement claimed in this application.

It is respectfully submitted that that none of the applied art, alone or in combination, teaches or suggests the features of claim 1 as amended above. Thus, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed invention. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claims 2-6 depend from claim 1 and include all of the features of claim 1. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reason claim 1 is allowable as well as for the features they recite. No new subject matter has been added in the amended claim 1.

Withdrawal of the rejection is respectfully requested.

As mentioned above, claim 7 has not been examined and examination of the same is respectfully requested.

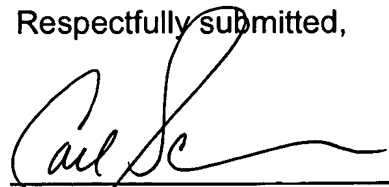
In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

Date: October 31, 2005

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Enclosure(s): Amendment Transmittal
 Petition for Extension of Time (2 months)
 Illustrative Drawing Figure

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